

CORNISH MINE PHOTOGRAPHS—No. XVIII.

"THE BAL BOY."

No apothegm in the English or any other language is more trite or true than that "One half of the world knows not how the other half lives." Little does the child "born with a silver spoon in its mouth" heed or care for him that is born with a wooden ladle. There always have been hewers of wood and drawers of water, and will be to the end of time: it is one of the conditions of our existence, but that does not alter the relative duties of the one towards the other. If the Almighty in his providence has seen fit to raise one star above another in glory, they and we have each our relative duties to fulfil: it will surely be required of us how we have managed the talents, and taken care of our trusts.

We are by no means maudlin philanthropists, or Exeter Hall declaimers on the horrid enormities perpetrated on black slaves at home and abroad; nor are we sentimental juveniles or piously inclined young ladies, so graphically depicted by our facetious Fleet-street contemporary. No! we are made of sterner stuff, or we should not have witnessed the scenes we are about to describe: we are of the masculine tribe; still we deem sympathy with the weak and innocent no disgrace, but, on the contrary, a cardinal duty, the neglect of which is a veniality. Our tale is brief; we claim but a few minutes, and the poor little objects shall speak for themselves, and declare their own tale of woe.

The "bal boy" is the term usually given boys when they first go to work on a mine: they are usually placed on the dressing-floors, where they are taught to sort the various ores, so as to know them at a moment's glance. On some of the larger mines, scores of boys and girls may be seen at this employment, selecting the different metals with surprising rapidity. Boys are then taught to buddle, jig, and prepare the ores for market. In tin dressing, more particularly, they are exposed to almost constant damp. In buddling, their bare feet, and legs as far as their knees, are continually wet. Until lately but few mines had even sheds to cover them from the weather. They were then almost continually drenched to the skin during the winter and spring months. After being taught the dressing process they are usually sent underground—at the age of 14. To this we see no objection, at this age their persons being sufficiently matured; but we do and will protest against children being allowed to be sent to great depths at an earlier age.

Being underground lately in many of the deep and extensive mines of Illogan, Gwonnapp, and Redruth, our heart ached to find so many poor children, of much earlier age, being deliberately murdered (we can use no milder term) to save or earn their parents a few shillings a week. At a depth of 145 fms., 870 ft., from surface, and up in a rise, a place very like an oven, and to gain which the miners and ourselves experienced considerable difficulty, we found a poor little pale, wretched child at work, when the following Cornish colloquy took place:—"How old is ta me son?" "How old am I, Sir? [a miner invariably echoes your first question] why I shall be ten year old come next birthday." "How long have ye worked underground?" "How long have I worked underground? lemme see, better than two year, and worked here all the time." "Who's thy father, then; what do they callen?" "That's may father," pointing to an old man in the place. We then questioned the father as to his own age, which he said was 36, he believed, but he could not tell. He could not read or write; he went to chapel every Sunday, when it wasn't his turn to watch the mine. He appeared to be 60 at least, and we found he had been sent underground at ten years of age! On remonstrating with him for bringing a child of such tender years to such a tremendous depth, and to such an atmosphere, 98 degrees, and with highly sulphurous and arsenical, from the peculiar minerals being raised, the father acknowledged he knew it was bad enough—"For," said he, "when I was a boy myself I have many times had a mind to lay myself down on a pile of ore and die, after a hard day's work, and then to climb 200 fms. to grass, loaded with bidders; and I did once fall asleep in the levels, and when I waked my candle was out, and there I was, forced to wait till somebody came to see for me. But what can a body do now, Sir? Them buddling and trucking machines have near done away with boys at surface: besides, he saves me a pound a month." So, there was this poor child, created in God's image, sacrificed to the idol Gain, and for such a paltry sum!

We found this to be by no means an isolated case. In one place, at the bottom of a very wet shaft, was a poor little fellow, holding the borer whilst a youth about 18 or 20 was hammering away at it with the strength of a Cyclops. An error or false blow on his part would probably break the child's arm: the slightest neglect of duty of the poor little fellow would be sure to entail a box on the ear from his companion. We soon found from experience that this was a dreadfully cold and wet mine, ten minutes sufficing to saturate our clothing, penetrating to the very skin, though of far superior quality; whilst the rags in which the miners were arrayed afforded but a mockery of protection. On enquiring of the child how long he worked, he replied—"Six hours, Sir; and long enough, too, Sir." To which we yielded a candid and ready assent. Poor little fellow! six hours in such a situation, and then to have 110 fms., or 660 ft. (the depth he was working in) perpendicular to climb on ladders, the steps of which were 10 and 12 in. apart, to overcome which an amount of physical labour must be expended truly frightful to contemplate—known only to practical experience or surgical professors. Yet this is the fate of hundreds of children not more than eight years of age! No wonder the gravestones bear the early dates they do—no wonder miners' consumption is prevalent—no wonder ignorance prevails! After such a journey, and such work, can children be expected to give much attention to learning to read and write—can they be supposed to take that recreation so necessary to childhood and boyhood? Is it any wonder that they associate, as they do continually, with men, become premature in their tastes and habits, contracting many they can never again abandon—can it be a matter of surprise that we see boys idling away their time listlessly, with the horrid pipe stuck in their mouths?—No; certainly not. As long as childhood be permitted to be employed in such situations, so long will these evils prevail. It calls aloud for remedy, but there has been no one to advocate their cause. Mammon stands in the way, and he is an all-powerful potentate. Why should not the protection afforded the cotton-spinner be extended to the poor little "bal boy?"

The Pantheistic theology of the Greeks and Romans, if carefully studied, seems evidently to have been derived from the circumstances of mankind, and not designed to suit or improve them, as is Christianity, if its principles be carried out, and hence the evidence of its divine origin.

Had the ancients sought out gods to personify the principles involved in the practice just detailed, could they have selected more suitable types than their Pluto and Pluto? The former is the god which rules supreme in the minds of those who permit such atrocities to exist, and the latter the demon that prompts, and to whom these poor wretches are heedlessly consigned, so that they but help to support the golden throne of the former. We see that the allegorical representation is perfectly true to nature, still we should have thought the more sublime system would have removed the adoration still paid to such idols. It would have been supposed that in this land of Christianity, where charitable institutions (to its honour) exist almost without a number—where countless temples of the various sects arise—where towers and steeples bristle, the service of these gods would have been so far expunged as to have prevented the immolation of little innocents on their sordid altars. Shame on mankind—shame on their institutions, that such things are permitted, even by parents, whose necessities should not even be allowed to plead as an excuse. Our blood boils with indignation, and our heart bleeds with sympathy! They are as surely murdered, body and soul, by a quiet, subtle, unseen process, as the poor innocents who have been bayoneted by the cruel Hindoo. But because it is at home, and is gradual, it is not noticed: still it is not the less true. We do not mean to condemn or infer that child labour should not be employed—far from it; but let child labour be suited to childhood, and not exercised in a profession dangerous to the skilful and experienced; but let it be supervised when children are compelled to go to such depths and such horrible holes.

Considered in a social point of view, can we be said to be doing our duty to ourselves and to society in allowing such things—can the rising generation be expected to be what they ought and should be—can they ever fulfil the high calling whereunto they are called? Can we, when called upon to give our great account, render a just one of having done our duty, neglecting this?

We are no orator, but had we the philanthropy of a Wilberforce, poetry of a Cowper, persuasive eloquence of a Peel, or the power of a Palmerston, our charity would be excited, our page would be graced with harmony—our voice would be raised, and our power exerted—aye! all combined should never cease their action, until this foul spot should be wiped out for ever, and these poor children enjoy that blessing which is their natural

birthright—free air and proper exercise during their tender years. Why should not these privileges be extended to mines as well as to factories? On enquiring of the village schoolmaster, I found him a good man, bitterly lamenting that he could not get the children to school; and even if they were sent their attendance was so irregular that he could not do any good. "It will never be any better, Sir, until it is stopped by law; for if parents can get a penny out of their children they will send them anywhere." We appeal to the humanity that has so successfully exerted itself in the cause of the sweep, which of the two is the greater evil,—the ascent of a few yards in a chimney, or the descent of hundreds of yards, and exposure to wet, with a foul atmosphere and hard work for six hours, then the frightful job of ascent, ere the poor child obtains his scanty meal and wretched bed? We think we hear it said—Can such things be? We answer, yes! we have painted but two as samples, thinking they are sufficient; they are but types, but they are facts patent to thousands. But use makes all things familiar, and use has rendered people as callous as eel-skinners. But eels have feelings, though they be skinned daily, and these poor bairns have bodies and souls!

And now, O ye fortunate scions of Nature! ye who were born with the "silver spoons," come forward—recollect your brethren of the "wooden ladders," and thou, O fair goddess, Humanity (she is no idol)—we invoke ye all—come forward, assist in the good cause; your countenance alone will be of vast avail; come forward and show the world that, though "One half the world knows not how the other half lives," you have charity and Christian fellow-feeling, when you do know, to assist those who have no power to help themselves—to come forward and deliver them from their tribulation and oppression. Remember the words of your Divine Master, "Suffer little children to come unto me, and forbid them not, for of such is the kingdom of Heaven." Act on this precept!—Geo. HENWOOD.

MINERAL WEALTH OF IRELAND.—No. I.

BY A MINING AGENT.

Much has been said from time to time respecting the industrial resources of Ireland. The pen of the philosopher has been active in drawing from its resources, and the ardour of the philanthropist—such as Profs. Kane, Smyth, and others—have not been silent in attempting to show the natural products of the land, thereby inducing capitalists to embark in developing its resources. Some have devoted themselves to the linen and other manufactures of the North; others to the great staple produce of all nations—agriculture; but few have attempted to lay before the reader a clear and well-defined statement of what has been done in developing its minerals, a subject that demands the attention of every well-wisher of this portion of the United Kingdom, and the nation in general; for unless the minerals of any kingdom are raised and applied to manufacturing purposes, that kingdom will never rise to that state of activity to which it is destined by the Creator. Irish mining has long engaged the attention of the *Mining Journal* and other papers devoted to industrial pursuits. Sometimes we see such expressions as, "Mining do't pay;" that "Irish mines are not lasting," and so forth. Much of this doubtless arises from ignorance, or from a want of the necessary data whereby to form an opinion; as, if the real facts were known, and a full statement of profits could be procured from every company working mines, results could be shown that would astonish many of her friends, and show that mining has been a good paying and profitable investment in this country. Comparisons are odious; we will not, therefore, attempt to draw one between Cornwall and Devon and Irish mining, though we are aware it could be done with credit to the latter; but would prefer that Irish mining shall stand upon its merits, and that facts adduced from existing mines shall show its value and importance. The northern portion of the country is little known as being productive of minerals: to this we purpose devoting our attention at present.

The minerals found in the North have been principally lead, coal, and iron, with salt. These are scattered generally throughout the different counties, but the county Down has been the most productive of lead. The stratification of the eastern sea board of this county is silurian, or what is commonly called clay-slate. This exists throughout almost the entire portion of the north-east; about the middle and southern parts the granite hills of Mourne come in; and in the north-west the sandstone formation, adjoining Belfast. The clay-slate north of the romantic Mourne, and beginning at Newcastle, is of a light blue colour, generally compact, and congenial for producing lead ore. A great number of mineral lodes have been discovered in this formation, ranging from the Mourne to Belfast Lough. The principal one wrought upon has been at the Newtownards Mines, which lie between the town of Newtownards and Bangor. These mines have been working for about seventy years, and are sunk 200 fms. deep. They comprise several mines, and have been wrought with great spirit. The exact returns cannot be obtained, as they have been in the hands of several companies, but it is well known that about 85,000lb. has been paid as profits. During the last 11 years above 15,000 tons of lead ore (galena) have been sold from them, which produced above 175,000lb., and left a profit to the company within that time of nearly 35,000lb. The vein in this mine is very large, producing a small quantity of water, and requires but small steam-power. In consequence of this being a private company but little is known of their operations. Several other lodes exist in the locality, and lead ore has been found generally scattered over the district, but no trials of any extent have been made. Several small mines have been wrought between the Newtownards and the granite hills—one at Castleward, near the residence of Lord Bangor. This mine is sunk 10 fms. deep, and a level opened upon two lodes but a short distance; yet from this small working from 50 to 60 tons of lead were raised, which very nearly paid the expense of working. This is a most promising mine. The ground in this locality is a very beautiful light hills; the lodes have been very productive, and upon the sea shore are found large boulders of lead ore, doubtless coming from the back of mineral veins; and yet with such prospects the mine is remaining unwrought, though it holds out such prospects of success. Southward of this can be found many mineral veins, all containing lead ore; and at Rathmullan and Dundrum very large veins exist, none of which have ever had any trial of consequence. Passing south of Newcastle, at the base of the Mourne, a great change of stratum occurs, and the clay-slate becomes much lighter in colour and softer in nature, reminding one of the hills of Gwonnapp. In this stratum are found veins of copper, producing sulphurets and carbonates, and even the glens running up the hill sides are marked with green carbonates; every stream, in fact, shows it by its copper-coloured water. No trials whatever have been made at the base of the Mourne Mountains, though the indications are so inviting; and as the great deposits of minerals generally are found in the clay-slate at the foot of granite hills, yet in this instance the explorer has never put into operation any movement to develop the ores of this portion of country.

Passing from Down to Antrim, we meet the sand and limestone formations in the south and east of the latter county, the north-eastern being the basaltic range, so romantic and beautiful in its form, as seen along the coast, and at the Giant's Causeway, with its tens of thousands of pillars. At Duncrue, near Carrickfergus, the Marquis of Downshire, a few years ago, commenced a trial shaft in search of coal, and when about 75 fms. from surface, a large bed of salt rock was passed; the shaft was continued through the deposit until it reached 90 fms., where the bed of salt terminates. This mine is now being prosecuted with great vigour by the Belfast Mining Company, who, in addition to working the mine at Duncrue, have erected very extensive salt works at Belfast, where a large quantity of salt is manufactured; in addition to which a very extensive export trade in salt and salt rock is carried on, much to the advantage of the port and trade of the town: 500 tons of salt per week is at present raising, but as the manufacture of that article is extending in Belfast and the North of England, where coal is so plentiful, it is expected that quantity will be materially increased. The works are now in that state of efficiency that 2000 tons of salt rock could be easily raised weekly. Lord Downshire is still searching for coal nearer the shore than Duncrue, but we fear, without much chance of finding any; however, "froaks of Nature do oodur," and we wish the worthy marquis every success. He was the cause of discovering the salt, that is giving employment to so many, and, if he succeed in coal, a stimulus will be given to the locality (already studded with spinning mills and manufactories in abundance) not easily described.

Following our course around the seaboard we reach Ballycastle, where iron and coal mines were worked by the ancients, but not in the memory of the present generation. This deposit is thought to be a continuation of the Lanarkshire and Ayrshire coal and iron bed. An English Company have taken up the district, and commenced operations to work for iron and coal. The situation being so near a harbour, is very advantageous

for carrying on a large export trade, which we have little doubt will be the case, when the mines are properly developed.

Having explained the mining operations in the counties of Down and Antrim, we think we can say with complacency it has been a very successful and lucrative business; productive and profitable lead and salt mines, and other promising mineral property, having been already discovered; and all show that mining in the north-east can stand upon its merits, and, when compared with other means for the employment of capital, is equally as remunerative. Much, however, remains to be done, the county can scarcely be said to have been proved at all, as only a few trials have yet been made, whilst the field is large and inviting.

Original Correspondence.

"SLEICKENSLIDES."

SIR,—I have delayed making any observations on this subject for some time, for the reason only that my views of it were at variance, in some measure, to those of such distinguished authorities as Eyan Hopkins, Lisabé, and Ennor. Mr. Hopkins kindly stated that he had seen them in granite; I would not differ from him in this opinion were I not compelled to do so. Mr. Lisabé generously and properly corrected me in the spelling of the word, giving it the true pronunciation. Not being a German, I may be pardoned the error; and my friend, Capt. Ennor, volunteered his idea of their cause. To all these gentlemen my thanks are due, and they have them. To Mr. Lisabé I can say no more. To Mr. Eyan Hopkins I shall offer no apology, as he can and will afford to bear with such as myself when I differ in opinion, and show reasons for it. Now, Mr. Hopkins said, in his advice to me, that he had seen these phenomena in granite, having visited several deep and extensive mines near Redruth in that formation, amongst them South Francis, Penrithal, Treasavan, and others; and to satisfy myself on a peculiar theory of my own, I believe, as to the nature and formation of elvans, I have made a searching survey of all the granite quarries of Constantine, Mabe, and Stythians, which have occupied several days. I have conversed with the quarrymen, with the clever captains, and with the intelligent miners, and on the enquiry, "Did you in the course of working ever meet with a 'sleickenslide'?" (I drop the German to them, and use their own language, to be the better understood.) "What do you mean, Sir? A hard polished wall, bright with mineral, like as if it had been rubbed?" "Yes, that is what I want." "I never seed one here," was the invariable reply. "I have seen them in slate, but never in granite."

When underground with that great miner, Capt. Pascoe, I called his attention to the subject. In his mine, and at Penrithal, are slides in the granite; these are very extensive dislocations, with smooth surfaces on them, and bright, but not "sleickenslides." Not having a copy of the *Journal* with me, I do not know the exact mines to which Mr. Hopkins refers, but I know it was to this neighbourhood. Now, I happen, perhaps, to be much better acquainted with this locality than Mr. Hopkins, as I, in my earlier days, was employed in this very part, South Dolcoath, or "Bardens Bal," being the first mine in which I made my debut. Afterwards Treasavan was my post (I rejoiced to see my dear old captain at Stythians, a few days since, recovering from a terrible attack of typhus fever), but I confess I never met with a true "sleickenslide" myself, or saw any one who had in the granite. I conversed with that "true philosopher," Humphrey Champion, and he agreed with me that he had never heard of such—that they were confined to the clay-slate and upper formations. To illustrate the subject more fully, he produced and presented me a beautiful example of the "sleickenslide" in the East of Wales, which we discussed. I called his attention to Mr. Ennor's idea of the cause, when we (with all due deference to so eminent and positive an authority) differed from it, as we could not for the life of us see how his theory could possibly be correct—that it was occasioned by the rubbing of one wall against the other—that the lustre was to be attributed to the attrition, and offered an example of a shod wheel passing rapidly, when heavily laden, over a road or frost. In this theory Mr. Eyan Hopkins appeared to coincide, at all events admit. Now, Sir, these conditions do not satisfy my mind. I have in vain sought for the "shod wheel;" I have in vain sought the metal work on mineral, to slide and give the lustre. I opine that it had been produced by such causes, they would long since have been corroded by oxidation or decomposition. I have carefully examined several specimens, and have failed in every instance to detect metal, the greater part, under microscopic observation, being iron pyrites. To account for the lustre, or some of those beautiful crystals polishing each other, would appear to me quite as reasonable as to account for "sleickenslides" from such a cause. In a few days I shall be in the region of "sleickenslides," where scores may be seen at surface, when I shall devote some attention to this subject, which I have heretofore given, and communicate to you, Sir, the result of my labours. In the meantime, let roughish polish roughish; I enjoy the good opinion of such men as Ennor, Hopkins, and Lisabé, and will, I trust, never do anything to alter this; but at the same time I enjoy I over their opinions when they differ from mine, as it then becomes my duty to prove the correctness of my own views, or become a convert to theirs, which I will readily do when I find I am wrong.

I do not wish to create a paper war on the subject, but it is one so little understood by "practicals" even, that no wonder theorists are at sea. This interesting, and I hold instructive, page of geology has been studied by many, but not half read; the A B C has not yet been got over: I believe them to be indeed little understood, but of this anon. I hope the three of Nature's philosophers will take these observations in good part; but I know they will; why do I doubt?—Feb. 23, 1857. Bodmin, Oct. 23. GEORGE HENWOOD.

FIRE-DAMP IN MINES.

SIR,—Not having an opportunity of replying last week to the letter of "Chemist" in your *Journal* of Oct. 10, I beg to claim a portion of your valuable space to make a few remarks on the explosion of carburetted hydrogen.

"Chemist" appears to class me among those in a dangerous condition from "little learning," but his letter would go to show that he belongs to the harmless ranks of those who have not tasted the "Pleasant Spring." All that he has got to say for himself or Mr. Rogers is, that the only possible products of the explosion of 5 vols. of carburetted hydrogen and 40 of air are those given by the author of the paper on Fan Ventilation, and challenges me, if I deny this—which not only I, but all chemists correctly so called (and not that class ridiculed by Liebig, the chemists who append "and druggist" to their professional titles, to which species I apprehend our friend belongs), do most emphatically and to show what are the products of such explosion. "Chemist" having made a positive assertion, in complete opposition to the experience of scientific men, ought to bring forward some proof that he is correct in his views; but not being able to do so, he throws on me the onus of demonstrating that he is in error. Your readers will not, I think, require any such demonstration, but I will endeavour to enlighten "Chemist" on the matter, although I doubt not it will be difficult to convince him that he is labouring under a mistake.

It does not seem to have occurred to him that a given volume of carburetted hydrogen requires an equally determined volume of air for its explosion; and that, if this quantity be not present, a portion of the carburetted hydrogen will remain unexpended; and this will undoubtedly be the case in the proportion stated by Mr. Rogers, there not being sufficient air to convert the whole of the carburetted hydrogen into carbonic acid and water; and, consequently, a portion of the explosive gas will remain in excess. If "Chemist" will try the experiment, he will find that it is so, and that free carbon is never produced by the explosion of carburetted hydrogen in air, be the proportions whatever they may.—Oct. 23. F. G. S.

VENTILATION OF COLLIERIES.

SIR,—It is evident from Mr. Hopton's letter, in your last *Journal*, that he is not satisfied with the explanation which I gave him in mine of Oct. 3; and, moreover, he complains that he is unable to find the two letters, X and T, which are of great importance, by way of elucidating that part of my last letter which states—in fact, the question in dispute—that Mr. Hopton's darts, as delineated in his No. 2 plan, are placed diametrically opposite to the direction which the air will traverse round the bord-gates. Now, in all the copies which I have seen these letters have been marked so distinctly as to be understood.

Mr. Hopton has strayed very much from the question in dispute, in his last letter, by stating so many particulars which are literally irrelevant to the discussion—such as the comparison between his No. 2 plan and the old system employed at Land Hill Colliery; the number of men employed in getting coal in the sets or benches, and the bord-gates, comparatively—as though these had anything to do with the aforesaid question in dispute.

Mr. Hopton has again misinterpreted a certain part of my letter relative to the ventilation of the various bord-gates; he says, "Now, if I mistake not, the meaning of Mr. Walk's is this—the air will not traverse or be carried by the sets or benches on one bord-gate as it will on the other." How Mr. Hopton suffers himself to be deluded in this manner I know not, for the darts in my diagram are distinctly shown pointing the same way in each and every bord-gate, except the furthest, which latter one will be explained after wards.

I am very much surprised that Mr. Hopton should so far commit himself as to state publicly that the ventilating power is not as to the density, but the furnace. Now, Mr. Hopton will perhaps allow me to give him a little explanation on this head—The furnace is placed at the bottom of the upcast shaft, to destroy the equilibrium of the two columns of air (that is, the downcast and upcast shafts); the greater the difference of density existing between these two columns, the greater will be the ventilating power to propel the air around the mine; consequently, it will at once be seen that the furnace is the cause, but the difference of density is the effect.

As Mr. Hopton has not fully understood my last letter, which I expected would have settled the question with respect to the darts pointing the contrary direction to that which the air will traverse in his No. 2 plan, I shall again attempt to enlighten him on the same subject by another mode of argument, and, as Mr. Hopton very properly states, we shall assume the areas in all cases to be equal; and supposing we have equal distances, in any case it is only right to suppose that the air will divide in equal quantities.

We shall now refer to my diagram, which appeared on Oct. 3, and take only Nos. 1 and 2 divisions in this case, the total quantity of air being 30,000 cubic ft. per minute, which we apportion in the following manner:—10,000 to pass through regulator A, and 10,000 to pass through at B, which in this case has no regulator, it being the longer division of the two. It will be seen at a glance, on the aforesaid diagram, that the distance along No. 1 division to the stopping marked X is equal to the distance along No. 2 division to the same. As in my last letter, I now make an opening in the said stopping X, and I require 12,000 to go to B, and 8000 to A. Now, I ask, will not the remaining 2000 pass through the opening in the stopping X, and unite at T with the 10,000 coming along the No. 2 division? Thus, I think, will be sufficient to satisfy the public that the air will not traverse from No. 2 division around the bord-gates, as marked by H, and then through regulator A, as indicated by the darts on Mr. Hopton's No. 2 plan. Now, observe the opening at X, and open the various regulators, assuming the quantity to be 72,000 (about half what Mr. Hopton assumed, and being a quantity not at all despicable), and apportion 12,000 for each regulator. Owing to the large amount of friction consequent upon so large a quantity of air passing between Nos. 1 and 2, is it not reasonable to think that 18,000, or more, will traverse along No. 1 division, 12,000 going to regulate A, and 6000, or more, around the bord-gates to T, where it will unite with the air coming along the No. 2 division, and, as before stated, "as the velocity is increased or decreased between Nos. 1 and 2 along the main level, so will it affect the air in the bord-gates." This law will hold good with the other bord-gates, the quantity of air traversing the same being in proportion to the quantity passing along the main level between the various numbers 1, 2, 3, &c.

I now come to explain why the air in the bord-gates No. 5, H, will not traverse in the

been picked up, and the price advanced from 4½, 5 to 5½, 5¾. Wheat Greenville shares have been in great request, at 11 to 21, leaving off at 2

new engine-shaft would be completed to the 70 in about six weeks. The prospects of the mine continued of the same promising character.

other mining counties with equal justice; in the former county, this is evidenced by the absorption of the men thrown out of employment from the Consolidated Mines and East Wheal Rose, without any inconvenience or distress whatever. There always have been, and always must be, unfortunate speculations winding-up, many from bad management and folly, whose advertisements occasionally appear, and cause fears to be entertained; these, though sadly interfering with, should not militate against, mining (which it is not, though assuming the name). We hear of one promising speculation, near Withiel, which has just been abandoned by a party, after squandering a considerable sum, not in developing or prosecuting the mine, but in squabbling amongst themselves, that is to be vigorously worked by a Cornish proprietor. There are numerous young mines progressing gradually but favourably. Too many persons are led, and lead themselves, to hope for immediate returns from mines. We beg such persons to discard these ideas, except they be already dividend mines in which they purchase; for even supposing the ore to be discovered, the preliminary processes for laying open the ground and preparing to raise the mineral and dress it for sale, in sufficient quantities to warrant a dividend, is and must necessarily be a work of time. They would do well to recollect a Cornishman's ideas of immediate returns from his own mine should be received relatively, as in comparison with other mines; that if it be not as our friends usually accept the term, in this sense the Cornishman may be correct; in the main, we believe they are correct.

The demand for metals is still good; mining stock generally stands the vicissitudes of the market as well as, or better, than any other similar securities,—we think there is every reason they should do so; they, of themselves, show no real symptoms of decay or decline, though we confess the smallness of the tickings would warrant such a supposition. Let but an advance in the standard again take place, and it would soon be seen the produce in number of tons will resume its former position. The standard is now at a price of which no miner need or does complain; still, a few pounds per ton extra would not be objected to; the miner would, however, feel better satisfied if he were convinced he was getting the full value for his ores. This is more particularly to be remarked in the cases of blende and munda producers, who know their ores contain considerable quantities of copper and silver, for which no allowance is made them,—this will probably cure itself. We believe the quantity of blende now produced, and which has been so much in demand of late, is again falling off, which is to be regretted. The price is scarcely enough to remunerate; its increasing scarcity may, perhaps, cause a better price for those who continue to produce, as zinc is largely in demand, and must be had. The prospects of mining, as a whole, we are assured, are highly gratifying, and are likely to continue so for a lengthened period.

The terrible risks to which miners are constantly exposed are too well known to require comment or illustration. The fact that they dwell, so to speak, in the Valley of the Shadow of Death, has rendered them reckless to a degree that is highly culpable, and the more so when it is remembered how important and precious are their lives to their wives and families; for miners constitute by no means the most provident class of our community, which does not rank high among nations for prudence and precaution. Without doubt this courage—for recklessness can arise from nothing but indomitable courage—which makes Englishmen the most venturesome people of the earth, is the great secret of our material successes; it is the mainspring of our power; but however noble and praiseworthy may be the spirit that defies all danger, the sanctity of life, even of one's own, ought never to be forgotten. We should remember that life ought not to be heedlessly risked, for we owe an account of its careful stewardship to society, not to speak of Him by whom it was bestowed. Still less ought we to put our lives in jeopardy when there are others, bound to us by the most tender ties, who are unfitted to contend with the world, and entirely dependent upon our exertions for their daily bread and future welfare. It is the first duty of every man to make provision for his family, and upon no one of the labouring classes is this duty more incumbent than upon miners, for their lives, to use a technical phrase, are doubly hazardous; yet, according to the official returns, they would appear to be far behind the rest of the population in providing for themselves and families against accident. In an account of the number of societies enrolled or certified in England, Wales, and the Channel Islands, from June 21, 1793, to Dec. 31, 1856, just published in the Registrar's Report on Friendly Societies, we find that Northumberland, with a population of 301,134, and an annual value of real property of 1,103,477, has only 345 benefit or friendly societies; while Essex, with a population of 344,918, and real property of the annual value of 1,914,198, has double the number of benefit societies—673. In the case of Cornwall this difference is still more striking: the great mineral county of England, with a population of 340,974, and real property of the annual value of 1,131,983, has only 362 friendly societies; while a corresponding agricultural county, such as Suffolk, with a population of 331,465, and real property of the annual value of 1,556,870, has 715 friendly societies. The comparison might be continued further, and always with the same result; but it will probably be deemed that sufficient evidence has been brought forward to show that a mining population is less provident than an agricultural one.

If we go abroad and compare similar classes, we shall find the improvidence of our miners made still more painfully manifest. Take, for instance, Belgium, whose population, of all the inhabitants of the Continent, bears the strongest resemblance to our own, by the nature of the employment and the industry of the people. There mining operations, especially coal workings, were formerly attended with as much danger and loss of life as here. In the ten years from 1835 to 1845 there occurred 1259 accidents in mines; 1175 miners were killed, and 860 seriously wounded, giving a total of casualties equal to 2035, or an average of more than 203 a year. This fearful rate of mortality led to the establishment of a more careful system of working; and it also led, which is more to our present purpose, to the introduction of the principle of making provision for the families of the victims, as well as for the maimed survivors of these catastrophes. Friendly societies, or provident funds, have been established in all the chief mines; at Liege, in 1839; at Namur, Mons, and Charleroi, in 1840; at the Central mines, and those of Luxembourg, in 1841. The object of these funds is to provide temporary and life pensions. Temporary pensions are made to the children of widows whose husbands have been killed in mines, to orphans whose last surviving parent perished in a mine, and in both cases until the children are 12 years of age. Pensions for life are granted to men rendered incapable of work by mining accidents, to the widows of miners killed during their work, and to the father, grandfather, mother, or grandmother, incapable of work, of any miner who may have been so killed. The funds are derived from five different sources—from deductions made out of the wages of the miners themselves, from voluntary contributions by the proprietors of the mines, from grants by the provincial authorities and the Government, from interest on capital, and from gifts, legacies, &c. The deductions from the wages of the men are compulsory, and range from $\frac{1}{4}$ to 1 per cent.; the contributions from mine owners generally equal the amount of deductions of their workpeople. In the Hainaut and Luxembourg funds, 10 per cent. is set aside out of the annual receipts, to form a reserve in case of extraordinary accidents occurring.

The provincial and Government grants are generally awarded to make up any deficiency, and in order to induce the affiliation of the various funds, and to authorize supervision. Besides the district funds to which we have alluded, there are other provident funds attached to single mines. The first received, in 1850, 5263*l.* in deductions from wages; 5263*l.* from proprietors; 1754*l.* from Government; 2426*l.* from other sources—making a total of 14,706*l.* Out of this amount, 11,649*l.* were paid away in pensions and assistance; 442*l.* in instruction and moral amelioration, and 579*l.* was the cost of management: the total outgoings were thus, 12,670*l.* The second class of provident funds which appear to be specially devoted to cases of sickness and accident, received, in deductions from wages, 12,085*l.*; from mine owners, 2414*l.*, making a total of 14,502*l.*; out of which the payments amounted to 13,988*l.* Grouping the two classes of funds together, and looking upon them as a whole, we find that, in 1850, the total receipts were 29,233*l.*, the total expenses 26,666*l.*, including 442*l.* for educating miners' children in the West Mons district. On Jan. 1, 1851, the reserved capital was 41,583*l.*, and the liabilities 8358*l.*. The number of mines united in this manner was 305, in 1850, employing 47,319 workpeople, whose wages amounted to 864,904*l.* By the aid of these figures we are enabled to arrive at some curious results. Out of the total receipts we find that the deductions from wages amounted to 59 per cent., the contributions of mine owners to 27 per cent., those of Government to 6 per cent., and from other sources to 8 per cent. of the gross amount. Dividing the amount deducted from wages, and the aid given by owners, by the number of men employed, it will be seen that the annual payment by each workman was 7*l.* 8*l.*, and the aid from

owners per workman 3*l.* 4*l.*. The annual average of wages, in 1850, was 19*l.*, which would, therefore, make the relative proportion of payments by a miner 1 per cent. to each of his funds, as before stated, or 2 per cent. in all. The averages, again, give 18*l.* 4*l.* as the amount to which each miner is a participator. The total receipts of the district funds since their establishment up to 1850 have been 118,794*l.*; the expenses 79,057*l.* during the same period, leaving a balance in hand of 41,579*l.*. The amounts received and expended by the local funds—that is, those attached to each mine—cannot be exactly ascertained, but they have always exceeded those of district funds. With this knowledge we cannot err in estimating the total receipts from the two sources at 280,000*l.*, and the total expenditure under both heads at 220,000*l.*. Having recourse once more to averages for the five years ending 1850, it will be seen that the average receipts from the two funds were 28,406*l.* a year, and the expenditure 24,581*l.*. "In this great movement of funds," says the registrar, "the six-tenths paid by the workmen have produced annually 17,043*l.*—a proof of the providence and sound ideas prevalent among the working class of Belgium, which redound highly to their credit. With so thrifty and careful a spirit among the lower classes, we can understand how, within a few years, Belgium has risen high among nations, and what has been the agent that has protected it alike from the fury of revolutionary tempests and from the ambition of powerful neighbours."

In our Journal of to-day will be found one of a series of papers we have lately published under the title of "Mine Photographs," containing a powerful appeal to our sympathies in favour of children employed in our metallic mines. Without endorsing all the views mentioned therein by Mr. GEORGE HANWOOD, whose experience entitles his opinions to considerable attention and respect, yet we think he does society good service in calling attention to the facts therein detailed.

We are aware children are sent underground at too early an age, and have frequently heard mine agents complain of it; but over this they have no control, seeing that the work is usually let by contract, the party so contracting being the person who employs the actual workers; they in their turn, as a matter of course, do the best they can for themselves, by the aid of their families, heedless too often, undoubtedly, of ulterior consequences. It will be observed in the underground scene so graphically described, the poor little fellow was, and had been, working underground with his father two years. We were not, however, aware child labour was employed so extensively as expressed, nor would we desire to fix a period so advanced as 14 years when boys should be taught to go underground for mining; still we hold, with our author, that at eight or ten years it is a gross outrage on humanity to send a child to such tremendous depths. We think there might be a judicious modification adopted—a graduation of age for depth—not employing children of less than 10 years underground at all, and from that age to 14 only at a certain level, where such dreadful fatigue would not be involved.

Dismissing all our author's poetic fancies, which are all very well in their way, and effective enough, we think with him it is really a pity that children should be so treated. It must be highly injurious to their constitutions, and we sincerely hope that the powerful appeal thus made may awaken a sympathy which will compel stringent measures to be adopted, so as to make the continuation or recurrence of such conduct impossible. The subject certainly deserves the attention of philanthropists, and we shall be happy to second or forward any measures that may be taken for so desirable an end. We feel confident that it only requires to be known in "high places" to be at once remedied: we hope, therefore, that our Journal may meet the eye of those who have the power and the will, when doubtless they will be both successfully exercised. There can be no necessity whatever for cruelty: though the parents and children see it not, yet it is unmitigated cruelty and moral degradation. It is, however, one of those social evils that it is difficult to reach. Appeals to the feelings of parents or immediate employers we know to be useless: nothing but the voice of public opinion will avail, and this we hope will not be withheld. We know that intelligent mine captains and mine proprietors object to the practice, but they are comparatively powerless in the matter.

We mentioned last week that an extraordinary and special meeting of the shareholders of the GENERAL MINING ASSOCIATION would probably be convened, to take into consideration the present position of the affairs and prospects of the enterprise, as resulting from the termination of the duties of the deputation sent home from Nova Scotia to confer with the board of directors in London, with a view of finally adjusting all points of dispute and difference. We now find that it is summoned for the 5th of next month—a day, in the old time, fraught with ominous import; but on this occasion, at all events, it will be found to be without either "gunpowder treason or plot," and the proprietors of the stock of the association will hereafter apparently "be pleased to remember the 5th of November." It is to be a "red letter day" in the annals of the enterprise.

It is well known that difficulties of many kinds have presented themselves whenever effort has been made to expand the business of the company; and the executive has had to contend with three distinct classes of interests—the home Government, the local Government of Nova Scotia, and the trustees of the Duke of York. All these are now brought within a narrow compass; indeed, one is to cease altogether, and the other two are so clearly defined as respects power and claims, that nothing will henceforth oppose the most energetic efforts of the directors to give full force to the powers of production, and increase of their export trade, which the means at their command enable them to do, now that they are unshackled from the annoying interference of red-tapism and captious opposition. The most vexatious and troublesome point has been the payment of dues to the representatives of the Duke of York. These are to be relinquished altogether: but for this, of course, a present money consideration is to be paid, and for this purpose it is proposed to increase the capital stock of the enterprise by the issue of such additional shares as will furnish the sum required. The present holders are to have the refusal of the new security before any portion is offered to the public; and so important and politic is the course suggested by the directors generally considered, that there is good reason to believe the whole of the extended capital will be at once absorbed by the existing proprietary. The new shares will necessarily be issued at a price slightly below the present market value of the existing stock, and this, moreover, will more readily secure their instant apportionment. Altogether the affairs of the General Mining Association are assuming a most encouraging appearance, and when it is generally known that the obstacles which have hitherto existed have been removed, there is little doubt that the stock of the company will be a more favourite channel of investment than has hitherto been the case, for the reasons explained in our recent articles on this subject.

It is evidently a matter of no small difficulty to get within the inner circle of the affairs of the BRITISH ROCK AND PATENT SALT COMPANY. It is guarded on all sides; and every effort, on our part, to obtain information for the satisfaction of our correspondents is met with the utmost opposition by those who can and who ought to furnish the desired particulars. Sooner or later they must be rendered, and this repeated obstruction only makes suspicion stronger that all is not in that order which it should be. In fact, it is as getting into a labyrinth to try and unravel the mystery which seems to pervade the management of this undertaking—indeed, a labyrinth enshrouded in a November fog; for persons connected with the Stock Exchange, and known to be closely interested in the association, now even refuse to "make a price" for the shares; so that there is no means of determining the value set on them, and thus inferentially arriving at a proximate idea of the position and prospects of the company.

That gentlemen should become irate at the course we have thought proper to pursue in this business, does not at all astonish us, but strengthens to our minds the necessity of persevering in our endeavours to bring this company to midday light. It is denied that meetings are not held and summonses not duly issued. The fact may be as asserted by the advocates for the system of management pursued by the British Rock and Patent Salt Company; but, if so, we are perfectly sure, nevertheless, that they have not been convened by public announcement, or in any other open manner usual with public companies; while equally sure are we that the representatives of the press have not been invited to attend, nor any report furnished.

To all intents and purposes, therefore, in the practical sense of the question, we contend we were quite correct in our assertions of last week; but if the representatives of the association will furnish us with a statement of the proceedings and resolutions of the gathering of the shareholders, said to have been duly convened and held lately, to declare the dividend now in course of payment, we will give it insertion *in extenso*. We apprehend we shall have to wait long before such a document is gra-

tuously communicated; and we must wait until some energetic shareholder takes the necessary steps to remove the unpleasant impressions which exist in the minds of the public as respects this company and the conduct of its affairs.

The reason assigned for the extraordinary increase in the dividend for this year, being a rise of no less than 400 per cent. over those for the last four, is that sheds or warehouses have been recently erected, so as to enable the company to make and secure large stocks of salt during the dull season, and thus be ready to supply the market at the proper moment, and to extend its sales to this marked extent. If this be so, it certainly is marvellous that these sheds or warehouses were not constructed years since, and does not reflect credit on those who had the active management of affairs; but it is only reasonable to suppose that other causes have assisted in effecting, if not occasioned, this augmented division of profits; and it really appears difficult to consider that the existence, or non-existence, of sheds could create such a decided change.

At all events, it could not have been a sudden matter, and why, therefore, is it asked, was not a dividend or an instalment thereof paid in April, instead of keeping the shareholders until October, when such large sums must have been at the disposal of the executive for this purpose? The argument is sound, and the only reply to be given by us is, that it is merely another point of mystification, for which the company seems determined to make itself notorious.

If we are rightly informed, the charter of the Association—this supposes the existence of a charter—requires that two meetings shall be held yearly, and that notice shall be given in the *Times* and *Chronicle*. We will, therefore, close our present remarks by asking whether this statement is correct, and silence on the part of the secretary, or other official, we shall regard as an admission of its truth.

The competition of English iron, to which allusion was made by our Paris correspondent two Journals back, is still the subject of serious debate among our neighbours, and complaints are made that irons, admitted free on condition of being employed exclusively for naval construction, are sold to the general trade by importers. There may be some truth in this allegation, for where protection duties exist their evasion grows into a regular trade. The attention of French ironmasters is still further occupied with this question, in consequence of the appearance of two decrees in last Tuesday's *Moniteur*, both dated 17th of the present month, relative to the importation of metals. According to the first, shipping iron, admitted free, is limited to articles of large dimensions—flat bars of 458 millimetres thick, and 916 millimetres broad; square bars, 22 millimetres on each side; and rods, 15 millimetres or upwards in diameter. Rolled iron of irregular forms, when they are to be employed for like purpose, are to be admitted free, provided they have been made from bars or rods of the same irregular form. This, I presume, refers to the different portions of the framing of ships composed of T and angle iron. Sheet-iron must be at least 2 millimetres in thickness. In no case will goods in a less advanced state of manufacture than specified above be admitted on these favourable conditions. Ship builders, and those engaged in manufacturing articles intended for the rigging, fitting out, and furnishing ships, are alone entitled to the benefits of the present decree, and a former one dated Oct. 17, 1855. The articles in this last, relative to the francisation of foreign ships, is extended to October 17, 1858. The second decree declares, that in conformity with the 6th article of the law of July 5, 1836, rough cast-iron, bars, T, angle, and plate iron, steel bars, together with copper, or its alloys, which may be imported from abroad, and made up in French workshops into articles for exportation, are to be admitted free when these raw materials are converted into ships, steamers, machines, or apparatus, either for the establishment or service of railways, or for industrial or civil constructions, or manufactures in metals. To enjoy the benefit of this arrangement, forge masters, constructors, or manufacturers must exhibit orders from abroad, and conform with the following conditions:—The constructor, &c., must present to the Minister of Agriculture, Commerce, and Public Works, a petition setting forth the character and extent of the orders to be executed, the nature and quantity of metals to be employed therein, and the nature and character of the goods to be re-exported. Engagements must also be entered into to comply with formalities, and supply proofs that may be deemed necessary, either by the Minister of Finance or by the Minister of Commerce.

Every petition must be accompanied by *pieces justificatives*, to be examined by a consulting committee of arts and manufactures. The Minister of Commerce is to give his decision after consultation with the Minister of Finance. The metals alluded to must be imported under the French flag, or under the flag of the nation that produced them, and the conditions mentioned in the first decree, relative to the dimensions of the irons, is also applicable under the second one. Importers are to give security to re-export, to lodge in a bonding warehouse, within six months after entry, the articles manufactured from metals imported, of the same weight and without any allowance for loss for making up. In all cases the goods must exhibit an advanced state of manufacture beyond what they had when imported. Such are the principal features, in outline, of the two decrees, which have created no inconsiderable commotion amongst the trade. It is stated, however, authoritatively, in one of the French papers, that if the provisions of the decrees are faithfully observed—that is to say, if the importations are employed only for naval constructions and exported goods—there is no fear of native ironmasters having to compete with foreign produce in the interior markets of France, especially as the prices of French irons have been lowered. As a proof of the correctness of these views, it is asserted that coke irons from the North may be brought to Paris for 300 frs. or 310 frs. the ton; and charcoal roll, either from Champagne or Burgundy, for 320 frs. or 330 frs. the ton. Welsh iron of second quality, which resembles the northern French iron, cost, delivered at Havre, including price in Wales, carriage, insurance, and commission, 230 frs. the ton, Custom dues, &c., 80 frs.; carriage from Havre to Paris, 15 frs., and incidental expenses, which would make the total cost of Welsh iron in Paris 332 frs. a ton. There is, however, an advantage in Welsh iron resulting from their peculiar classifications. Scotch and Staffordshire irons may be imported under more favourable conditions than Welsh, which resemble the charcoal rolls in quality; they are delivered at Havre for 260 frs. the ton, which, with the additions as in the former case, will bring up their cost to 362 frs. the ton.

THE MINING AND INDUSTRIAL INTERESTS OF CORNWALL

[FROM OUR CORRESPONDENT IN WEST CORNWALL.]

Oct. 22.—The difficulties of the money market continue, and must have a depressing effect, for the time, upon the trade of the country. The trade in metallic manufactures must suffer to some extent, and there are those who apprehend that the copper standard will still further decline. But it should be recollected that the stock of foreign in the country is at present small; and, consequently, any decline will soon be followed by a reaction. The commercial panic and stagnation of trade in America will, no doubt, affect the demand for tin to a considerable extent; but commercial affairs in the States do not generally continue long depressed, and a renewed demand will immediately attend a return to a healthy course of business. The consumption of tin for manufacturing purposes has of late years so greatly increased, that the price of this metal cannot remain low for any length of time.

There have been enquiries for shares in several mines during the past week, but the sales effected have not been numerous. Dolcoath shares are at 320*l.*, and difficult to be obtained. The ends of various levels in this mine are altogether worth 320*l.* per fm., and the slopes and pitches are producing large quantities of tinstuff. The shaft is sinking below the 242, and the 242 west, on the north part of the main lode, is worth 120*l.* per fm.; the 242 east, 20*l.* per fm.; the 220 and 230 fm. levels west, are each worth 50*l.* per fm., and a winze sinking below the 230 is worth 120*l.* per fm. The shaft is nearly down to the 254. It is a most remarkable mine, having this immense tin deposit in depth, whilst, at shallower levels, it was a very productive copper mine. The copper ores sold from this mine from 1815 to 1856 amounted to 241,522 tons, which realised 1,364,554*l.* The mine is now selling tin to the amount of between 40,000*l.* and 50,000*l.* a-year. Wheal Seton was formerly a good mine, having sold upwards of 300,000*l.* worth of ore, but its productiveness has fallen off very much of late years. The agents, however, are endeavouring to resuscitate the mine by driving cross-cuts for the intersection of other lodes, amongst them West Seton north lode. West Seton shares are at 345*l.*, and are difficult to be obtained. The mine continues to be very rich in the bottom: the 100 east is worth 50*l.*, and the 100 west 90*l.* per fm. There are four stopes yielding on an average 13½ tons each of good ore per fm.; these

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200	Botallack (tin), St. Just	270	270	270	410 00	0 0
1200	Brightside and Froggatt Grove, Derbyshire	3	3	3	3 00	0 0
180	Bryndall (lead), Flint	30	30	30	12 00	0 0
1000	Bryndall, Llanidloes, Montgomeryshire	21	21	21	0 50	0 0
400	Budick (lead), Flint	3	3	3	0 10 0	0 0
6000	Swish (silver-lead), Cardiganshire	31. 1s. 8d.	31. 1s. 8d.	31. 1s. 8d.	0 2 6	0 0
1000	Carn Brea (copper), tin, Illogan	15	15	15	235 10 0	0 0
2048	Caruorth (tin), St. Just	4	4	4	0 10 0	0 0
700	Cefa Cwm Brynno (lead), Cardiganshire	33	33	33	3 00	0 0
2000	Collaun (copper), Devon	5	5	5	3 17 0	0 0
250	Condurow (copper), tin, Camborne [S.E.]	20	20	20	2 00	0 0
1053	Craddock Moor (copper), St. Cleer	8	8	8	0 50	0 0
30000	Craven Moor, Limited (lead), Yorkshire	60	60	60	0 9 0	0 0
128	Cwmystwith (lead), Cardiganshire	60	60	60	0 5 0	0 0
200	Durwent Mines (silver-lead), Durham	300	300	300	122 00	0 0
1024	Dorset Great Consols (cop.), Tavistock [S.E.]	32	32	32	587 0 0	0 0
673	Ding Dong (tin), Gwynedd	32	32	32	10 7 0	0 0
179	Doleah (copper), tin, Camborne	257	257	257	0 4 0	0 0
12800	Drake Walls (tin), Calstock	11. 10s.	11. 10s.	11. 10s.	0 16 0	0 0
300	East Daron (lead), Cardiganshire	32	32	32	33 00	0 0
2048	East Falmouth (lead)	2	2	2	0 5 0	0 0
128	East Pool (tin), Pool, Illogan	24	24	24	200 00	0 0
1024	East Wheel Margaret (tin), Pool	7	7	7	0 5 0	0 0
8700	Exmouth (silver-lead)	41. 14s.	41. 14s.	41. 14s.	3 50	0 0
1400	Eyan Mining Company (lead), Derbyshire	5	5	5	15 13 4	0 0
4910	Fowey Consols (copper), Tyeardneath	4	4	4	41 4 3	0 0
4448	General Mining Co. for Ireland (cop., lead)	3	3	3	1 0 0	0 0
2000	Goginan (silver-lead), Cardiganshire	7	7	7	22 00	0 0
1024	Gonnam (copper), St. Cleer	12	12	12	0 7 6	0 0
248	Grambler and St. Aubyn (copper)	109	109	109	0 0 0	0 0
6000	Great South Tolgus [S.E.]	10	10	10	1 4 0	0 0
26056	Great Wheel Vor (tin), Pool, Illogan [S.E.]	7	7	7	0 5 0	0 0
119	Great Work (tin), Gernoe	100	100	100	231 10 0	0 0
1024	Herodsfoot (lead), near Liskeard	8	8	8	3 2 0	0 0
6000	Hingston Down Consols (copper), Calstock	3	3	3	2 16 0	0 0
3000	Holyford (copper), near Tipperary	11	11	11	4 2 6	0 0
2580	Isle of Man (Limited)	25	25	25	54 17 3	0 0
78	Jamaica (lead), Mold, Flintshire	34. 13s. 6d.	34. 13s. 6d.	34. 13s. 6d.	380 00	0 0
20	Laxey Mining Company, Isle of Man	100	100	100	1420 00	0 0
180	Levant (copper), tin, St. Just	90	90	90	1062 0 0	0 0
5000	Lewis Mines (tin), Pool, Illogan	34. 11s. 11d.	34. 11s. 11d.	34. 11s. 11d.	0 10 0	0 0
400	Lisburne (lead), Cardiganshire, Wales	120	120	120	301 10 0	0 0
6000	Marke Valley (copper), Cardigan	47. 10s. 6d.	47. 10s. 6d.	47. 10s. 6d.	0 5 0	0 0
5000	Mendip Hills (lead), Somerset	3	3	3	1 7 6	0 0
5000	Merrilyn (lead), Flint	3	3	3	1 11 0	0 0
1500	Minera Mines (Limited)	25	25	25	21 00	0 0
30000	Mining Co. of Ireland (copper, lead, coal)	15	15	15	12 15 6	0 0
5000	Monks and Penrhyn, Limited (2 1/2% shares)	7	7	7	0 1 6	0 0
6000	Nether Heath, Westmoreland	2	2	2	0 0 0	0 0
470	Newtons Mining Company, Co. Down	50	50	50	48 0 0	0 0
200	North Pool (copper), tin, Pool	33. 1s. 10d.	33. 1s. 10d.	33. 1s. 10d.	0 2 0	0 0
140	North Rosebar (copper), Camborne	507. 7s. 6d.	507. 7s. 6d.	507. 7s. 6d.	750 00	0 0
6000	North Wheel Basset (cop., tin), Illogan [S.E.]	150	150	150	13 13 0	0 0
6000	Par Consols (copper), tin, St. Just [S.E.]	1	1	1	29 14 0	0 0
500	Peak United (lead), North Derbyshire	7	7	7	4 10 0	0 0
200	Phoenix (copper), tin, Linkingthorne	100	100	100	224 10 0	0 0
1000	Pulberron (tin), St. Agnes (Preferential)	15	15	15	15 11 9	0 0
500	Providence Mines (tin), Uny Lelant	207. 13s. 2d.	207. 13s. 2d.	207. 13s. 2d.	66 4 8	0 0
2500	Rhoswyl and Bacheland (lead)	12	12	12	0 10 0	0 0
512	Rosewars United (copper), tin, Gwennap	12	12	12	33 10 0	0 0
12000	Sorridge Consols (cop.), Whitlatch [S.E.]	6	6	6	0 10 0	0 0
250	South Caradon (copper), tin, St. Just [S.E.]	2	2	2	482 0 0	0 0
128	South Crinias (copper), tin, St. Austell	12	12	12	8 11 3	0 0
350	South Tolgus (copper), Redruth, Cornwall	18	18	18	74 0 0	0 0
490	South Wheel Frances, Illogan [S.E.] 14s. 18s. 6d.	250	250	250	367 5 0	0 0
1024	Spearhead Consols (tin), St. Just, Cornwall	31. 6s. 4d.	31. 6s. 4d.	31. 6s. 4d.	3 8 6	0 0
280	Spearhead Moor (copper), tin, St. Just	237. 7s. 6d.	237. 7s. 6d.	237. 7s. 6d.	4 5 0	0 0
970	St. Aubyn and Grylls (cop., tin), Breage	67. 6s. 4d.	67. 6s. 4d.	67. 6s. 4d.	0 12 6	0 0
20000	St. Day United (tin and copper)	2	2	2	0 2 6	0 0
94	St. Ives Consols (tin), St. Ives	80	80	80	910 0 0	0 0
9000	Tamar Consols (sil-lead), Berrisford [S.E.]	4	4	4	4 13 6	0 0
6000	Tincoff (copper), tin, Pool, Illogan [S.E.]	8	8	8	8 3 6	0 0
2000	Trehan (silver-lead), Penryn	8	8	8	8 11 3	0 0
272	Trevelyan Consols (tin), St. Ives	11	11	11	10 10 0	0 0
96	Trevelyan (copper), Gwennap, Cornwall	43	43	43	487 15 0	0 0
120	Trevelyan (copper), Gwennap, Cornwall	15	15	15	403 13 6	0 0
4000	Trevelyan (copper), tin, Bodmin	3	3	3	0 5 0	0 0
4096	Trevelyan (silver-lead), Menheniot, Cornwall	2	2	2	1 13 0	0 0
100	Trumpet Consols (tin), near Helston	95	95	95	55 0 0	0 0
4000	United Mines (copper), Gwennap [S.E.]	40	40	40	61 5 0	0 0
20000	Valley of Towy (lead), Carmarthen [S.E.]	2	2	2	0 3 0	0 0
512	Wendron Consols (tin), Wendron	231. 7s. 6d.	231. 7s. 6d.	231. 7s. 6d.	3 0 0	0 0
6000	West Basset (copper), Illogan [S.E.]	1	1	1	12 0 0	0 0
250	West Caradon (copper), Liskeard [S.E.]	30	30	30	285 5 0	0 0
250	West Darnley (copper), Gwennap	107	107	107	22 0 0	0 0
1024	West Providence (tin), St. Erth	11. 11s. 7d.	11. 11s. 7d.	11. 11s. 7d.	33 3 9	0 0
400	West Wheel Seta (copper), Camborne	38	38	38	0 10 0	0 0
1228	Wheel Arthur (copper), Calstock	3	3	3	6 10 0	0 0
940	Wheel Basset (tin), St. Just	6	6	6	2 0 0	0 0
912	Wheel Basset (copper), Illogan [S.E.]	5	5	5	468 10 0	0 0
250	Wheel Buller (copper), Redruth [S.E.]	5	5	5	842 10 0	0 0
1024	Wheel Charlotte, Perranaruth	3	3	3	1 10 0	0 0
250	Wheel Clifford (copper), Gwennap	450	450	450	39 0 0	0 0
5000	Wheel Fortescue, Bodmin	nil.	nil.	nil.	0 2 4	0 0
128	Wheel Friendship (copper), Devon	50	50	50	2375 10 0	0 0
1024	Wheel Grylls (copper), tin, Breage	48	48	48	8 11 3	0 0
512	Wheel Jane (silver-lead), Ken	3	3	3	8 10 0	0 0
5000	Wheel Kitty (tin), St. Agnes	4	4	4	0 6 0	0 0
1024	Wheel Kitty (tin), Uny Lelant [S.E.]	21. 7s.	21. 7s.	21. 7s.	0 6 0	0 0
490	Wheel Lovell (tin), Wendron	33	33	33	31 0 0	0 0
448	Wheel Margaret (tin), Uny Lelant	19	19	19	82 0 0	0 0
1024	Wheel Mary Ann (lead), Menheniot [S.E.]	8	8	8	30 2 6	0 0
80	Wheel Owles, St. Just, Cornwall	70	70	70	220 15 0	0 0
240	Wheel Seta (tin), Uny Lelant	31	31	31	40 0 0	0 0
198	Wheel Seta (tin), Uny Lelant	150	150	150	26 10 0	0 0
1040	Wheel Trevelyan (sil-lead), Liskeard [S.E.]	10	10	10	10 2 6	0 0
1024	Wheel Trevelyan (tin), Pool, Gwennap	10	10	10	2 10 0	0 0
4096	Wheel Wrey (lead), tin, St. Ives	11. 9s.	11. 9s.	11. 9s.	0 4 0	0 0
6000	Wicklow (copper), Wicklow	5	5	5	27 5 6	0 0

* Dividends paid every two months. † Dividends paid every three months.

FOREIGN MINES.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
5000	Altun Mining Company (copper), Norway	214	214	214	4 5 0	0 15 0
2464	Barras Barra (copper), South Australia	11	11	11	0 5 0	0 0
12000	Cobre Copper Company (cop.), Cuba [S.E.]	40	40	40	85 12 0	0 0
10000	Copio Mining Company, Chile [S.E.]	16	16	16	5 0 0	0 0
20000	General Mining Assoc., Nova Scotia [S.E.]	20	20	20	10 5 0	0 0
15000	Linares (lead), Potosi, Bolivia [S.E.]	3	3	3	4 5 0	0 0
10000	Lustan (of Portugal) [S.E.]	1	1	1	0 4 3	0 0
10315	Mariquita and New Granada [S.E.]	1	1	1	0 2 6	0 0
35000	Peninsular Mining Company (Limited)	1	1	1	0 2 6	0 0
10000	Pontgibaud (silver-lead), France [S.E.]	20	20	20	1 0 0	0 0
7000	Royal Santiago (copper), Cuba [S.E.]	16	16	16	33 0 0	0 0
11000	St. John del Rey	15	15	15	34 7 6	0 0
48174	United Mexican (silver), Mexico [S.E.]	28	28	28	1 16 6	0 0
30000	Mexican and So. Amer. Smelting Co. [S.E.]	10	10	10	6 15 0	0 0
88678	North British Australasian [S.E.]	1	1	1	0 1 8	0 0

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
20000	Australian [S.E.]	7	7	7	1	0 0
60000	Chancellorville Freehold	1	1	1	46 64 5s.	0 0
50000	Clarendon Consols [S.E.]	4	4	4	4s. 4d. 6d.	0 0
50000	Cologne Mining Company	51	51	51	2s.	0 0
350000	Copper Mines of Eng. [S.E.]	28	28	28	2s. 6d.	0 0
12000	Ditto, Prof. 7 1/2 per cent. [S.E.]	27	27	27	2s.	0 0
250000	Fortuna	2	2	2	1s. 1 1/2	0 0
2500	Kinsight Min. Ass., Germany	4	4	4	1s.	0 0
25000	Liberty, Virginia	17s.	17s.	17s.	1s.	0 0
40000	London and Virginia	17s.	17s.	17s.	1s.	0 0

PROGRESSIVE MINES.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
6000	Abbey Consols (lead), Cardigan	14. 6d.	14. 6d.	14. 6d.	1 1/2	0 0
10000	Angarrack	1	1	1	1 1/2	0 0
10000	Arundell (cop.), near Ashburton	3	3	3	1 1/2	0 0
400	Balmain Co. (tin), Uny Lelant	5	5	5	1 1/2	0 0
10000	Bampfyde (copper), Devon	3	3	3	1 1/2	0 0
1000	Bart (lead), Kewick	1	1	1	2 1/2	0 0
6000	Basset Gwennap United (cop.), Ken	1	1	1	1 1/2	0 0
4000	Bedford Consols (copper)	12s.	12s.	12s.	1 1/2	0 0
2000	Bendish (Limited)	1	1	1	1 1/2	0 0
250	Berriow Consols	12 1/2	12 1/2	12 1/2	10	0 0
5000	Belling Wall (cop.), Gwennap	2	2	2	1 1/2	0 0
50000	Bolton Mining Company (Limited)	1	1	1	1 1/2	0 0
1130	Briford Consols	28	28	28	7 1/2	0 0
4000	Brook Wood, Buckfastleigh	1	1	1	1 1/2	0 0
2000	Bryn-y-Pedwen (lead)	3	3	3	1 1/2	0 0
6000	Buckland Consols (copper)	1	1	1	1 1/2	0 0
6380	Buller and Basset United	2	2	2	4 1/2	0 0
1200	Buller and Basset (copper)	41	41	41	1 1/2	0 0
118	Burton (silver-lead)	65	65	65	2 1/2	0 0
6000	Cae-Cynon, Cardiganshire	10	10	10	1 1/2	0 0
800	Calcutt Hill (lead), Limited	10	10	10	1 1/2	0 0
4000	Calstock Consols (copper)	5	5	5	6 1/2	0 0
2000	Calstock United (tin and cop.)	6	6	6	1 1/2	0 0
1000	Camborne Consols	13	13	13	9 1/2	0 0
920	Camborne and W. Frances	9	9	9	8 1/2	0 0
1024	Cardigan Consols, St. Cleer	11	11	11	7 1/2	0 0

Shares.	M
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